

REMARKS/ARGUMENTS

In the Office action dated July 5, 2006, the Examiner rejected claims 1-7, all of the claims in the Application, under 35 U.S.C. § 103(a) as being unpatentable over U. S. Patent No. 6,185,198 B1 to LaDue in view of U. S. Patent No. 6,978,939 B2 to Russell *et al.*

In the Specification, page 4 is amended to include a brief description of Fig. 3, which was inadvertently omitted from the Specification as filed. Fig. 3 was provided at the time of filing, and is discussed in the Specification as filed.

In the Claims, 1,2 5 and 6 are amended.

The Invention

This invention provides a method of providing an optical link which may be implemented between two or more mobile communication devices to facilitate data transfer. The invention allows a plurality of portable electronics devices within optical proximity, equipped with optical image capturing devices and image display devices, to exchange information by displaying and capturing graphical patterns, *e.g.*, 2D barcodes, which represents the information, without requiring any other communication means linking the portable electronic devices.

The method of the invention provides a bi-directional optical communication protocol for ***TRANSFERRING DATA FROM ONE PORTABLE COMMUNICATION DEVICE (PCD) TO A SECOND PCD WITHOUT THE NEED FOR A HARD-WIRE OR RF COMMUNICATION CONNECTION.*** The data to be communicated is first rendered in computer readable form. The method of the invention determines if the optically rendered data can be stored in a single data file. If the data file is too large to fit into a single graphic file, multiple associated graphics are used, and the data is converted into plural graphic files. Otherwise the data is converted into a single graphic representation data file. In the method of the

invention, the data is displayed as a graphical representation, *e.g.*, bar-code or other graphical representation which is readable by the other device.

Once the data is rendered and graphically displayed on a display, the MCD then reads and stores the graphic representation by reading the graphic representation with the optical capture mechanism, specifically, a CCD camera, which can capture an image of the graphic and store it for later processing. The method of the invention then determines whether the graphic representation is successfully captured. If the capture is not successful, the graphic is read again until the capture is successful. This may be accomplished, in the case of multiple associated graphics, by informing the user that the *n*th of *x* total graphics was not decoded and instructs the user to attempt to re-capture the *n*th graphic to complete the data file.

An algorithm of the method of the invention is applied to the stored graphic, to convert, or decode, the encoded data back to a format that is suitable for the MCD's data filling system. The data is then stored in the MCD's data file location. A control process controls the CCD and the interpretation algorithm, and directs storage of the newly decoded data into the MCD's file system, or data storage location.

The Applied Art

U. S. Patent No. 6,185,198 B1 to LaDue, granted February 6, 2001, describes a TDMA system which allows a variety of communication protocols to be used between a mobile device and a base station. None of these protocols incorporates an optical communication protocol.

U. S. Patent No. 6,978,939 B2 to Russell *et al.*, granted December 27, 2005, on an application having a priority date of March 19, 2003, describes a PDA having a business card scanner and a camera therein, wherein a business card may be scanned and associated with a

photographic image.

The Claims

Claim 1 has been amended to eliminate the element of determining whether the data can be stored in a single data file, which limitation is now included in claim 2. The Examiner states incorrectly that '198 discloses a method of optical bi-directional communication. The Examiner cites '198 Figs. 1 and 2, and a number of portions of the '198 specification. However, '198 clearly uses a proprietary communications protocol referred to as VBRAAM, which is strictly RF in nature. This is particularly evident from a close inspection of '198 Fig. 2, wherein all communication between tower 101 and device 100 is RF in nature, as is all communication between device 100 and elements 114, 109 and 220. See Col. 1, lines 51-62. Nowhere in '198 is there any reference or suggestion that the communication protocol is optical, or that there is any provision for a camera-like device. A search of the U. S. Patent and Trademark Office downloaded text of '198 fails to locate the words "optic*" "camera" "CCD" or the like.

Claim 1 is very clear in requiring an optical data capture mechanism. '939 provides two such devices in the form of a scanner and a camera, however, neither '939 nor '198 have any mechanism for communicating with another like device by optical link, which is clearly required by the claim. There is no teaching nor suggestion in either reference, nor in a combination of references, that a second mobile communication device communicate with the first mobile communication device via an optical link. Clearly, '198 is not optical in nature; '939 requires an electrical connection between the scanner and the camera-bearing PDA, col. 6, lines 16-20; thus, there is no optical link between two mobile communications devices, as required by claim 1. The device of '939 may have multiple pieces, but it is a solitary unit, so even if the two components of '939 were optically linked, they would not teach nor suggest optical

communications between two like devices. '939 states that the PDA data may be downloaded to a PC, col. 6, lines 43-50, however, no specific protocol for so doing is disclosed. For the reasons set forth above, amended claim 1 is clearly allowable over the applied art.

Claim 2 has been amended to incorporate the “determining step previously contained in claim 1, which requires that the data be stored in plural files if the determining protocol determines that the data is too large to fit within a single file. Although the Examiner contends that '939 teaches such a protocol, the Examiner's contention is not supported by the clear language of '939. '939 simply states that the scanned and photographic image *MAY* be placed in a single file, or in the inventor-disclosed version of the invention in the '939 specification, that the scanned data and the photographed data are stored in separate files which are *associated*. Col. 3, lines 12-15; col. 6, lines 38-43. Determining whether the optical data, once rendered, can be stored in a single data file is a key feature of the method of the invention and of claim 2. '939 simply makes the assumption that, in some instances, the scanned data and the camera-captured data *ARE* stored in a single file. Col. 6, lines 57-61:

It is also contemplated that the text image can be integrated with the picture image 154 so that the information from the text image overlies the picture image 154, thereby, being readily viewable together and saved together in a single file.

The wording of this portion of the specification of '939, *i.e.* “It is also contemplated...,” clearly indicates that the inventive steps of storing the scanned and photo data in a single file had not been completed at the time '939 was filed. Further, there is no teaching nor suggestion of how one might accomplish this feat, until Applicants' teaching is brought into play. Claim 2 is clearly allowable over the applied art.

Claim 3, as filed, requires that the act of storing the captured data in one of the mobile communication devices includes, *inter alia*, determining if the graphic representation is

successfully captured. The Examiner acknowledges that '198 does not accomplish this task, Office Action, page 3, line 2 and page 4, last paragraph. Presumably, the Examiner looks to '939 for this feature of Applicants' invention, however, the Examiner does not point to any specific section of '939 in support of the Examiner's position, which follows, because '939 does not teach nor suggest this element of Applicants' claims. Claim 3 is allowable over the applied art.

Claim 4 depends from claim 3, reciting that, if the graphic representation is not successfully captured, the graphic representation is read until capture is successful. Again, the Examiner acknowledges that '198 does not teach nor suggest this element, and again fails to identify any portion of '939 in support of the rejection. '939 does not support the Examiner's rejection in any form. As the Examiner has failed to reject the claim under 35 U.S.C. § 103(a) with any specificity, it is assumed that claim 4 is allowable over the applied art.

Claim 5 is a combination of claim 1 and parts of claims 2 and 3, and is allowable for the reasons set forth in connection therewith.

Claims 6 and 7 are allowable for the reasons set forth in connection with claims 2 and 4, respectively.

It should be noted that, although Applicants have amended the independent claims to further the prosecution of this Application, Claims 1, 2, 5 and 6 are allowable over the applied art *PRIOR* to their amendment herein.

In light of the foregoing amendment and remarks, the Examiner is respectfully requested to reconsider the rejections and objections stated in the Office action, and pass the application to allowance. If the Examiner has any questions regarding the amendment or remarks, the Examiner is invited to contact the undersigned.



Provisional Request for Extension of time in Which to Respond

Should this response be deemed to be untimely, Applicants hereby request an extension of time under 37 C.F.R. § 1.136. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any over-payment to Account No. 22-0258.

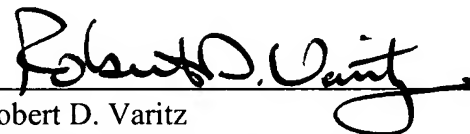
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Respectfully Submitted,

ROBERT D. VARITZ, P.C.

Registration No: 31436
Telephone: 503-720-1983
Facsimile: 503-233-7730


Robert D. Varitz
2007 S.E. GRANT STREET
Portland, Oregon 97214

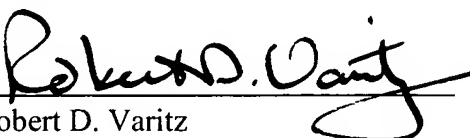
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I hereby certify that the attached RESPONSE TO OFFICE ACTION UNDER 37 C.F.R. § 1.111 is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to:

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450


Robert D. Varitz